Claims 1-11 (Cancelled).

12. (Currently Amended) A method for increasing upstream communication in an optical network comprising the steps of:

receiving an optical signal that is formatted according to a network protocol and predetermined timing scheme and having a predetermined encoding scheme that provides transitions per code group of data to facilitate clock recovery;

increasing a speed in which a detecting circuit can receive optical signals by adjusting a time constant of the detecting circuit according to a predetermined frequency of the data that is dependent upon the network protocol and encoding scheme;

increasing a speed in which ~~the detecting~~ an automatic gain control circuit can adjust gain between different optical signals by adjusting a time constant according to the predetermined frequency;

increasing a speed in which a limiting circuit can convert optical signals to electrical signals by adjusting a time constant according to the predetermined frequency; and

converting the optical signals to electrical signals according to the predetermined frequency.

13. (Original) The method of Claim 12, wherein the step of receiving optical signals comprises receiving optical signals formatted according to a Gigabit Ethernet standard.

14. (Original) The method of Claim 12, wherein the step of receiving optical signals comprises receiving optical signals encoded according to 8B/10B encoding.

15. (Original) The method of Claim 12, wherein the step of receiving optical signals comprises receiving optical signals formatted according to a time division multiple access protocol.

16. (Original) The method of Claim 12, wherein the step of increasing a speed in which a detecting circuit can receive optical signals comprises decreasing a time constant by

decreasing capacitance of a photodetector circuit to correspond with a predetermined frequency of the data.

17. (Original) The method of Claim 12, wherein the step of increasing a speed in which the detecting circuit can adjust between different optical signals comprises decreasing a time constant by decreasing capacitance of a gain control circuit to correspond with a predetermined frequency of the data.

18. (Original) The method of Claim 12, increasing a speed in which a limiting circuit can convert optical signals to electrical signals comprises decreasing a time constant by decreasing capacitance of the limiting circuit to correspond with a predetermined frequency of the data.

Claims 19-30 (Cancelled.)

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